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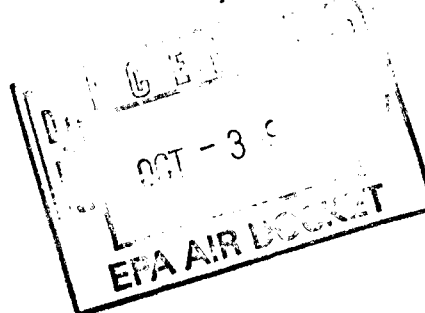
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



OFFICE OF
AIR AND RADIATION

MEMORANDUM

SUBJECT: Conversations and Meetings with Ford Employees
Regarding Testing of MMT

FROM: David J. Kortum, Environmental Engineer
Fuels Section

THROUGH: Barry D. Nussbaum, Chief *B. Nussbaum 9/17/91*
Field Operations and Compliance Policy Branch

THROUGH: Mary T. Smith, Director *MTS*
Field Operations and Support Division

TO: Docket A-91-46 (LE-131)

The purpose of this memorandum is to transmit to the docket substantive information regarding an application by the Ethyl Corporation to use the fuel additive methylcyclopentadienyl manganese tricarbonyl as an additive in unleaded gasoline. This memorandum summarizes two telephone conversations and a meeting held between Environmental Protection Agency (EPA) staff and employees of Ford Motor Company.

On August 13, 1991, two telephone conversation were conducted with Ford employees regarding ongoing testing of MMT-containing fuels by Ford Motor Company. These conversations occurred between me and Dewain Belote and Ron Hurley. The Ford representatives indicated that testing of eight vehicles over 100,000 miles (four using fuel with MMT and four using clear fuel) was nearly completed. Ford indicated that preliminary results suggested that the exhaust hydrocarbon (HC) levels were higher for vehicles operating on fuel containing MMT when compared to the levels of those operating on clear fuel. Ford further indicated that the exhaust HC increases were substantially higher after 50,000 miles than the increases observed by Ethyl in its 48-vehicle test program. The Ford representatives also stated that particulate levels were being measured in the Ford program (although no actual results were stated).

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On August 28, 1991, several EPA staff met with several employees of Ford at Ford headquarters in Detroit, Michigan. The EPA and Ford attendees are listed separately below. Although no written information was submitted to the Agency staff, Ford data (which was still in the process of being developed) on eight vehicles was presented. The data indicated that, for HC emissions, both engine out HC and tailpipe HC emissions were higher for vehicles operating on MMT-containing fuel. The average increase for the MMT vehicles was about 0.12 grams per mile (gpm) at 50,000 miles. Results for other regulated emissions (NOx and CO) were mixed. Ford staff indicated that the differences in results for these vehicles when compared to results obtained by Ethyl using their test fleet may be due to differing mileage accumulation fuels, maintenance procedures, and how the data was statistically aggregated.

List of Attendees:

Environmental Protection Agency:

Mary Smith
Richard Lawrence
Bruce Kolowich
Barry Nussbaum
Dwight Atkinson
David Kortum

Ford Motor Company:

Robert Hammerle
Nancy Homeister
Alison R. Nelson
Dewain Belote
David Kulp
Tom Lasley
Ron Hurley
Charlie Sherwood
Haren S. Gandhi